

REMARKS

Claims 1 and 2 have been amended. Claims 3-6 have been added. No new matter has been added. Claims 1-6 are currently pending. Applicant reserves the right to pursue the original and other claims in this and other applications. Applicant respectfully requests reconsideration in light of the above amendments and the following remarks.

Claims 1 and 2 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Miyashita et al. (U.S. Patent No. 7,080,016) ("Miyashita").¹ This rejection is respectfully traversed and reconsideration is respectfully requested.

The claimed invention relates to an optical disk reproducing apparatus with enhanced operability in searching for a "beat" of a musical recording.

Claim 1 recites an optical disc reproducing apparatus. The optical disc reproducing apparatus includes a "reproducing means which reproduces, from an optical disc, an audio signal and time information relating to a reproducing time for said audio signal, which are recorded on said optical disc." It further includes a "beat detecting means which detects beats contained in a musical rhythm represented by said audio signal, from said audio signal reproduced by said reproducing means." The apparatus further includes a "first storing means which stores said audio signal reproduced by said reproducing means" and a "a second storing means which stores the time information reproduced by said reproducing means, with respect to each audio signal respectively corresponding to said beats being continuous, which are detected by said beat detecting means." The apparatus also includes a "first operation means which receives a beat

searching operation from a user.” It further includes a “control means which, when said first operation means receives said beat searching operation from said user, searches for the time information of said beats being continuous stored in said second storing means, in order of time represented by the time information, or in reverse order thereof, and reads said audio signal stored in said first storing means based on the time information thus searched.”

Miyashita relates to a method of joining two musical pieces such that the tempo and beats match and therefore avoiding an “unnatural feeling to the listener.” Abstract. In order to seamlessly join a second piece of music with a first piece of music to give a continuous reproduction, the beat detecting part of Miyashita detects a first beat position in the first piece of music. The second piece of music is then reproduced so that a beat position in the second piece of music matches a detected beat position in the first piece of music.

The claimed invention, on the other hand, stores a reproduced audio signal in a first storing means and stores the time information of the detected beats from this audio signal in the second storing means. When the user then operates the first operation means, the audio signal stored in the first storing means is read based on the time information of the searched beats (stored in the second storing means). The invention provides a more efficient way for a user to mark a point in the music based on, for example, the downbeat. Using the stored timing information allows the beats to be found more easily, based on a

¹ Applicant respectfully submits that Miyashita is not a valid reference under 35 U.S.C. § 102(b), but is a valid reference under 35 U.S.C. § 102(e). Applicant assumes that the rejection under 35 U.S.C. § 102(b) is a typographical error and has responded to the rejection as such.

user selection of search operation. Miyashita does not disclose, teach or suggest a user selecting a beat searching operation.

Several of the claim limitations of the present application are recited in means-plus-function format. In order for a prior art reference to apply to a means-plus-function limitation, the prior art element must perform the identical function specified in the claim. See M.P.E.P. § 2182. Applicant respectfully submits that Miyashita does not disclose, teach or suggest a “second storing means” or a “control means” performing the functions as recited in claim 1. Applicant further submits that Miyashita does not disclose, teach or suggest a “second operation means” operating as recited in claim 2.

Accordingly, claim 1 is patentable over Miyashita. Claims 2 and 3 depend from claim 1 and are allowable along with claim 1. Applicant respectfully requests that the rejection be withdrawn and the claims allowed.

New claim 4 recites an optical disc reproducing apparatus. The optical disc reproducing apparatus includes a “reproducing means which reproduces, from an optical disc, an audio signal and time information relating to a reproducing time for said audio signal, which are recorded on said optical disc.” The apparatus further includes a “beat detecting means which detects beats contained in a musical rhythm represented by said audio signal from said audio signal reproduced by said reproducing means.” It further includes a “first storing means which stores said audio signal reproduced by said reproducing means” and a “second storing means which stores said time information reproduced by said reproducing means, with respect to each audio signal respectively corresponding to said beats being continuous, which are detected by said beat detecting means.” The apparatus also includes a “first operation means which receives a beat

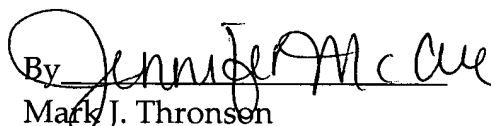
searching operation from a user.” It also includes a “control means which, when said first operation means receives said beat searching operation from said user, reads the audio signal corresponding to said time information of beats stored in said second storing means, said audio signal being stored in said first storing means.”

As previously discussed with respect to claim 1, Miyashita does not disclose, teach or suggest a “second storing means” or a “control means” operating as recited in claim 4 or a “second operation means” as recited in claim 5. Accordingly, claim 4 is patentable over the cited art. Claims 5 and 6 depend from claim 4 and are allowable along with claim 4. Applicant respectfully requests that claims 4-6 be allowed.

In view of the above amendment, Applicant believes the pending application is in condition for allowance.

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